

1037-32-359

Jennifer Halfpap* (halfpap@mso.umt.edu), Dept. of Mathematical Sciences, 32 Campus Drive, Missoula, MT 59812. *The Szegő Kernel for Tube Domains in \mathbb{C}^2 Near a Point of Infinite Type.*

In joint work with Alexander Nagel and Stephen Wainger, we obtain estimates on the Szegő kernel associated with tubular domains of the form $\{ (z = x + iy, w = u + iv) \in \mathbb{C}^2 : v > b(x) \}$ where b is smooth, convex, and of infinite type at the origin. We show, in particular, that if b is of the form $b(x) = \exp(-|x|^{-\alpha})$, for $\alpha \geq 1$, the Szegő kernel has singularities off the diagonal. (Received February 05, 2008)